Case 3:20-cv-04677-JD Document 625 Filed 12/22/23

Page 1 of 12

2425901

DEFENDANT NETFLIX, INC.'S TRIAL BRIEF Case No. 3:20-cv-04677-JD

I. INTRODUCTION

In this sprawling case, Plaintiffs Broadcom Corp. and Avago Techs. Intl. Sales Pte. Ltd. (collectively, "Broadcom") assert 11 claims from 5 patents, covering 3 separate technology areas—data processing networks, binarization algorithms, and virtual machine management.

Defendant Netflix, Inc. ("Netflix") does not infringe any of the claims of the asserted patents. The '121 claims a specific type of data processing network that bears no resemblance to Netflix's OpenConnect topology or paradigm. The '387, '663, and '283 patents claim specific binarization algorithms that cannot be found in the accused source code. The '138 patent claims virtual machine management, technology absent from Netflix's accused technology.

The '121, '387, and '663 are all invalid under 35 U.S.C. § 101. In addition, the '121 is invalid under §§ 102/103 in view of the Real Broadcast Network (a system), Leite, Kenner, and/or Belknap. The '387 and '663 are invalid under §§ 102/103 in view of Kerofsky and/or Fenwick. The '283 is invalid under §§ 102 and/or 103 in view of Liu and/or Lim. The '138 is invalid in view of Altiris (a system), Virtual Center (a system), Khandekar, Jackson, and/or Plouffe. The '121 and '663 are also invalid under § 112.

And, importantly, the patents are worth a tiny fraction of what Broadcom now seeks to recover for their alleged use by Netflix. A 2016 valuation by Ernst & Young valued the '121 and '283 patents at \$15,000 each. And Broadcom licensed a video encoding patent to Lowell Winger—the same inventor as the '387 and '663—for royalties that have totaled only \$767,666. So Broadcom's damages theories grasp at unrelated datapoints that say nothing about the accused technology. The '121 theory relies on a Ph.D. student thesis that measured the benefits of an algorithm that Netflix does not now and has never put into production; the '387 and '663 theories rely on a supposed 17.9% compression benefit which does not correspond to binarization (indeed, their inventor testified that his technology "did not significantly improve compression," Winger Tr. at 61:11–15); and the '138 theory overlooks the fact that the accused technology (Titus) actually loses money for Netflix. For all of these reasons, Broadcom's claims will fail at trial.

II. LEGAL STANDARDS

A. Infringement

1

A patent is infringed if "each and every limitation set forth in a claim appears in an accused product." *V-Formation, Inc. v. Benetton Grp. SpA*, 401 F.3d 1307, 1312 (Fed. Cir. 2005).

3

B. Invalidity

4 5

6

A patent is ineligible under § 101 if it is directed to an abstract idea and lacks an "inventive concept sufficient to transform [it] into a patent-eligible application." *Alice Corp. Pty.* v. CLS Bank Int'l, 573 U.S. 208, 218, 221 (2014).

7

8

9

A patent is anticipated under § 102 if prior art "disclose[s]... each and every element of a claimed invention." *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987). It is sufficient if a person of ordinary skill in the art ("POSITA") "would at once envisage the claimed arrangement or combination." *Kennametal Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d

1011

1376, 1381 (Fed. Cir. 2015) (internal quotations omitted).

12 13

14

15

16

17

18

1920

21

22

23

24

25

26

2728

examines "the scope and content of the prior art," "differences between the prior art and the claims," and "the level of ordinary skill." KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007).

that it would have been obvious at the time the invention. 35 U.S.C. § 103. This analysis

A patent is obvious under § 103 if the differences between the patent and prior art are such

C. Patent Damages (Reasonable Royalty)

Broadcom has abandoned its claims for lost profits and injunctive relief, and seeks only a reasonably royalty. The reasonable royalty may be based on the supposed result of hypothetical negotiations between the plaintiff and defendant, whose calculation is guided by the fifteen factors set forth in *Georgia–Pacific Corp. v. U. S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). These include "the royalties received by the patentee for the licensing of the patent," "rates paid by the licensee for the use other patents comparable," "the licensor's established policy and marketing program to maintain his patent monopoly" and "the character of the commercial embodiment …as owned and produced by the licensor." *Id*.

III. ARGUMENT¹

Pursuant to paragraph 4 of the Court's Standing Order for Civil Jury Trials, Netflix specifies each cause of action and defense to be tried. In doing so, Netflix highlights arguments it will make in support. Netflix nevertheless reserves its right to advance any argument disclosed in discovery or otherwise permitted under the law and the Court's rules.

A. Plaintiffs' claims will fail.

1. Reconfigurable Data Processing Network – the '121 patent

a. The '121 patent is not infringed.

Broadcom accuses Netflix's OpenConnect content delivery network of infringing claims 1 and 3 of the '121 patent. The patent is directed to a "network for data processing" comprised of "selectable nodes," including a network of nodes residing within an A/V decoder chip or device.

Netflix's OpenConnect does not infringe any asserted claim limitations, including:

First, Netflix does not "concatenat[e] the selected . . . two selectable nodes." Broadcom identifies the client (e.g., a Netflix app running on a device) and a Netflix OCA server (which sends the video) as "two selectable nodes" but: (1) the client is not a "selectable node" because the user—not Netflix—selects the client device that will receive the video, and (2) no two Netflix OCA servers are ever connected together.

Second, Netflix does not have the required "controller." Broadcom identifies the OpenConnect control plane as the "controller," but the control plane does not perform the "controller" functions required by the claim. Specifically, it does not "form" the "chain of nodes" because it does not select the Netflix client and the OCA it connects to. Instead, the Netflix client (which Broadcom says is a "node," not a "controller") selects the OCA itself.

b. The '121 patent is invalid.

The '121 patent is ineligible under § 101. The claims of the '121 patent are directed to the abstract idea of routing information through a network by connecting nodes together, and lack an inventive concept because they only recite generic and functionally recited components, such as a "controller" and "nodes." Netflix has moved for summary judgment. Dkt. 451 (*pending*).

The '121 patent is also invalid under §§ 102 and/or 103 if, as the law requires, the claims are interpreted the same way for invalidity as Broadcom interprets them for infringement. 01 Communique Lab., Inc. v. Citrix Sys., Inc., 889 F.3d 735, 741 (Fed. Cir. 2018). On infringement, Broadcom has interpreted the '121 patent to cover content delivery networks and adaptive streaming. See, e.g., Goodrich Tr. 323:6–12, 345:19–346:2. But by 1998, 4 years before the '121 patent's priority date, RealNetworks publicly sold its own content delivery network, the

Real Broadcast Network ("RBN"), which incorporated RealSystem G2 and included adaptive streaming. Broadcom admits that RBN practices all asserted claim limitations except for 1[c], which recites "dynamically selecting . . . two selectable nodes and dynamically concatenating the . . . nodes." Broadcom's dispute is meritless. RealNetworks' documentation repeatedly describes RBN's capabilities as "dynamic," and RBN performed the same dynamic functions that Broadcom has said are sufficient for infringement.

c. Broadcom overstates damages for the '121 patent.

Broadcom's claim for a reasonable royalty for the '121 patent rests on flawed assumptions and methodological errors. *See* Dkt. 467-1. Broadcom contends that without its patent, Netflix would have lost 6.5% of its subscribers "due to a reduced quality of experience," and then calculates a royalty based on Netflix's overall subscriber revenue. McDuff Rpt. ¶ 338; *Id.*, Ex. F-3. But Broadcom cannot establish any reliable link between the patent and Netflix's revenues. Stamm Rpt. ¶¶ 181–249.

Even if Broadcom proved infringement, the '121 patent is unrelated to the accused technology. Crovella Rebuttal Rpt. § X.A. In addition, Broadcom's claimed benefits—a reduction of 20-30% in streaming disruptions—are based solely on a Ph.D. thesis measuring the benefits of a different adaptive streaming technology that Netflix *never* implemented and that is *not* accused of infringement. Dkt. 470. Moreover, Broadcom makes no effort to apportion the incremental value of adaptive streaming when using multiple servers, which Broadcom says are necessary to practice the asserted claims. *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1311 (Fed. Cir. 2018); *Sound View Innovations, LLC v. Hulu, LLC*, 33 F.4th 1326, 1338 (Fed. Cir. 2022). In addition, Broadcom *cannot* show that consumers subscribe because of the accused Netflix features.² It is thus improper to rely on Netflix's revenues for its streaming service as a whole as an appropriate royalty base. *See Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 904 F.3d 965, 979 (Fed. Cir. 2018).

2. Binarization Algorithms – the '387, '663, and '283 patents

² McDuff Tr. 186:24–187:9; 205:14–20 (admitting that consumer demand for Netflix subscriptions "depend[s] on content and other factors[,]" and consumers may subscribe to Netflix or continue their subscriptions due to non-patented factors, including Netflix's content library).

2

4

5

7

9

8

10

1112

13

14

1516

17

18

1920

21

2223

24

25

26

2728

a. The '387 and '663 patents are not infringed.

Broadcom accuses Netflix of infringing claim 5 of the '387 patent and claims 12, 13, and 20 of the '663 patent through its use of the x264 and Beamr software encoders. Broadcom's Singapore-based affiliate acquired both patents from LSI Corporation. Broadcom practices neither patent. The '387 and '663 patents are directed to a single step within encoding—binarization, which is the mathematical process of converting a decimal number (e.g., 3, 11) to 1s and 0s. Broadcom will not prevail on its infringement claims for at least the following reasons:

x264 does not infringe the '663 patent because it does not perform the steps in the required order. Dkt. 112 at 10–11. Instead, x264 generates a "third pattern" (at line 1448 of the code) *before* it generates a "second pattern" (at line 1450), and Broadcom and its expert Dr. Richardson do not dispute this.³ Netflix has moved for summary judgment. Dkt. 451 (*pending*).

Neither x264 nor Beamr infringe the asserted '387 and '663 claims because they do not "generat[e]" or "construct[]" a "codeword." Instead, segments of a binarization are sent from the binarization module in pieces, and never assembled into a "codeword."

Neither x264 nor Beamr infringe the asserted '387 and '663 claims because they do not generat[e]" or "construct[]" a "codeword" "if" or "in response to" a comparison to a threshold. Instead, parts of the "codeword" are generated before any comparison is made.

Neither x264 nor Beamr infringe the asserted '663 claims because the alleged "third pattern" is not "a value above said offset," but rather a value above the offset *and* threshold.

b. The '387 and '663 patents are invalid.

The '387 and '663 patents are ineligible under § 101. The asserted claims are directed to the abstract idea of combining two mathematical algorithms—unary and exp-Golomb—and lack an inventive concept because they recite nothing more than those abstract algorithms. Indeed, the asserted '387 claim is subject to collateral estoppel because of a prior § 101 decision from this District. Netflix has moved for summary judgment. Dkt. 451 (*pending*).

The patents are also invalid under §§ 102 and/or 103 because, as the patents and their

³ Dkt. 504-1 (MSJ Opp.) at 24–25; Dkt. 449-3, Ex. 15 (Richardson Op. Rpt.) at 28, ¶¶ 164–65, 168-69; Dkt. 449-3, Ex. 14 (Richardson Tr.) at 554:1–19.

inventor Dr. Winger admit, unary and exp-Golomb algorithms were already known. '387 patent at 1:66–2:2, 4:50–51; Winger Tr. at 34:9–25. The patents claim nothing more than a "hybrid" that combines them—something a POSITA would have been motivated to do given the known limitations of each, *see*, *e.g.*, '387 patent at 5:35–45, 6:21–25, and something that was already taught in the prior art. For example, Kerofsky, which was published in 2001, teaches a method of "grafting" or combining two different codes. Kerofsky at 311–12. This method can be used to generate the same binarization patterns that the '387 and '663 claim. Orchard Rpt. § X.B.

Claim 13 of the '663 patent is also invalid under § 112 ¶ 4 because it fails to narrow the claim from which it depends by specifying a "further limitation." *Pfizer, Inc. v. Ranbaxy Labs Ltd.*, 457 F.3d 1284, 1291 (Fed. Cir. 2006). Claim 13 is practiced only when an index is "below" a threshold, and thus it does not further limit claim 12, which is only practiced in a separate domain, when the *same* index is "at least as great as" the *same* threshold. *See* Dkt. 451 (*pending*).

Claim 20 of the '663 patent is also invalid under § 112 for lack of written description.

c. Broadcom overstates damages for the '387 and '663 patents.

Broadcom's reasonable royalty relies on a cost-savings approach which fails to apportion the incremental value of the accused patented features from the overall value of the product. *See, e.g., MLC IP,* 10 F.4th 1358, 1373 (Fed. Cir. 2021); *Finjan,* 879 F.3d at 1311. Broadcom bases its royalty demand on the flawed assumption that the patents result in a 17.9% compression improvement—leading to corresponding savings to certain Netflix storage and network hardware and costs⁴—but that figure (as Broadcom's own expert admits) does not reflect the benefits of the claimed binarization method. Richardson Tr. at 579:2–24; 587:25–588:5. Netflix's technical experts conducted testing that confirmed that use of the patents would lead to minimal, if any, improvement, Goodin Rebuttal Rpt. § VIII; Sze Rpt. ¶¶ 375, 379, which is consistent with the deposition testimony of the inventor himself, Dr. Winger. ⁵ Broadcom's damages for the '663 and

⁴ Dr. McDuff also erred in including certain cost categories as though they vary with encoded file size, which further overstates any cost savings. *See* Stamm Rpt. ¶¶ 264–83.

⁵ See Winger Tr. 61:11–15 ("Q: All right. So relative to what the standard was using at the time of your proposal, your hybrid method did not significantly improve compression efficiency; is that right? A: Correct").

'387 patents are also limited by its RAND commitment, which Broadcom ignores.⁶

d. The '283 patent is not infringed.

Broadcom accuses Netflix of infringing claims 1 and 3 of the '283 patent through its use of the Beamr software encoder. Broadcom practices neither claim. The '283 patent is directed to binarization of the partition mode and prediction mode components of an encoded video. Netflix does not infringe the asserted claims of the '283 patent because, *inter alia*, it does not "configure[]" "a video encoder" to "employ a single binary tree." A binary tree—a well-known data structure in computer science—is never employed in the Beamr code.

e. The '283 patent is invalid.

The '283 patent is invalid under §§ 102 and/or 103 at least in view of U.S. Patent App. No. 13/012,811 ("Liu"), filed on January 15, 2011. Liu discloses a binarization scheme for partition and prediction mode which practices all of the elements of the asserted claims.

f. Broadcom overstates damages for the '283 patent.

Broadcom's claim for a reasonable royalty for the '283 patent also relies on a cost-savings approach that fails to apportion out the incremental value of the accused patented features from the overall value of the product. *See, e.g., MLC IP,* 10 F.4th at 1373; *Finjan,* 879 F.3d at 1311. The '283 patent provides marginal improvement, if any, in compression efficiency relative to the next best alternative available to Netflix. Stamm Rpt. ¶ 290–91, 391–94. To the extent there are any cost saving benefits related to storage and data transfer of compressed files, Broadcom's analysis erroneously includes cost categories that do not vary with incremental changes in compression, thus significantly overstating such cost savings. Stamm Rpt. ¶ 293–305.

Broadcom's damages are also limited by its RAND commitment. *See* note 6, *supra*.

3. Virtual Machine Management – the '138 Patent

a. The '138 patent is not infringed.

Broadcom accuses Netflix's Titus system of infringing claims 1, 11, and 14 of the '138

⁶ In contrast, Netflix's expert, Dr. Lopez, provided an analysis of comparable license rates for relevant patent pools and provided an opinion on a RAND royalty that properly reflects the value of the patented technology, even if the '663, '387, and '283 patents are found not to be standard essential. Lopez Rpt. ¶¶ 216–17.

12

14

16

17

19

20

22

23

24 25

26

27 28 patent, which Broadcom acquired from CA, Inc. and does not practice. The '138 patent is directed to virtual machine management. Titus, on the other hand, is Netflix's container management platform. Containers and virtual machines are two distinct types of software. Titus does not infringe the '138 patent for at least three reasons.

First, the asserted claims of the '138 patent claim a system operable to store and copy "image instances" of a "virtual machine manager," which the parties agree is a "software program that is capable of managing one or more virtual machines." Dkt. 569 ¶ 4. Titus does not store and copy image instances of a virtual machine manager.

Second, the asserted claims of the '138 patent claim a system operable to store and copy "image instances" of software applications. The parties agree that an "image instance" is "a snapshot, or copy, of installed and configured software." Dkt. 112 at 2. Titus does not store and copy image instances of software applications because Titus container images (the accused "image instances of . . . software applications") are not installed and configured.

Third, the asserted claims require "a software image repository . . . operable to store: (i) ... image instances of a virtual machine manager ... and (ii) ... image instances of a plurality of software applications." (emphasis added). The plain and ordinary meaning of this language which Broadcom does not dispute—is that a single software repository stores both types of image instances. Even if Titus stored image instances of a virtual machine manager and image instances of software applications, Titus does not store these types of software in the same repository.

The '138 patent is invalid.

The '138 patent is invalid under §§ 102 and/or 103 by two prior art systems that were "known and used by others in this country" before the patent's priority date of March 30, 2006.

First, the '138 patent is anticipated and/or rendered obvious by Altiris Deployment Solution 6.5 ("Altiris"), a distributed computing system that was released on September 1, 2005. Altiris was used to autonomically store and deploy image instances of applications, including image instances of the virtual machine manager ESX Server Version 1.5 ("ESX Server") and virtual machines running on ESX Server, well before the priority date of the '138 patent.

Second, the '138 patent is also invalidated by VirtualCenter Version 1.2, a distributed

computing system that was released to the public by VMware in December 2004.

c. Broadcom overstates damages for the '138 patent.

Broadcom's claim for a reasonable royalty fails to properly isolate and apportion out the incremental value of the accused patented features from the overall value of the product. *See, e.g., MLC IP*, 10 F.4th at 1373; *Finjan*, 879 F.3d at 1311. Indeed, Broadcom cannot explain how the alleged cost savings calculated by its expert are tied to the accused Titus container management platform. *See Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1337 (Fed. Cir. 2009). Netflix has never established any such benefit from the use of Titus, let alone from the alleged use of the '138 patent. In addition, based on the flawed assumption that the '138 patent benefits Netflix via increased "developer velocity," Broadcom's expert purports to quantify those benefits by simply looking at changes in Netflix's employee costs over time, which ignores large anomalies in the data that contradict his hypothesis, fails to account for economies of scale, and dismisses the need to even evaluate any comparable licenses. Broadcom cannot demonstrate the existence of *any* (let alone significant) cost savings that are attributable to Netflix's use of Titus.

B. Netflix will prevail on its affirmative defenses.

1. The '387, '663, '283 patents are unenforceable due to patent misuse.

The "key inquiry under the patent misuse doctrine is whether, by imposing the condition in question, the patentee has impermissibly broadened the physical or temporal scope of the patent grant and has done so in a manner that has anticompetitive effects." *Princo Corp. v. ITC*, 616 F.3d 1318, 1328 (Fed. Cir. 2010). "[C]ondition[ing] a license under the patent on the purchase of a separable, staple good" is *per se* patent misuse. *Va. Panel Corp. v. MAC Panel Co.*, 133 F.3d 860, 869 (Fed. Cir. 1997). Broadcom engaged in *per se* misuse by conditioning rights to the '387, '663, and '283 patents on an

⁷ Dr. McDuff's damages opinions for the '138 patent, and the technical opinions of Dr. Goodrich upon which he relies for his flawed assumptions regarding the alleged technical benefits are wholly unreliable. *See* Dkt. 467-1 (*Daubert* motion, *pending*).

See Dkts. 515-4 at 224:11–22, 227:6–13; 515-5 at BRCM00751995–96, BRCM00751998; 515-7; 515-8; 515-9; 515-10 at 64:22–65:2, 68:5–69:25, 70:7–14, 103:16–19. Broadcom has market power in the relevant market for the misused patents, each of which are essential to the H.264 and/or H.265 video coding standards. Dkt. 456-2 ¶¶ 61–83. Accordingly, the '387, '663, and '283 patents are unenforceable.

2. The '283 patent is also unenforceable due to waiver.

Waiver occurs either when a patentee, with full knowledge of the material facts, intentionally relinquishes its rights to enforce its patent or engages in conduct so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such rights have been relinquished. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1019–22 (Fed. Cir. 2008). The evidence will show that Broadcom's behavior constitutes waiver of the '283 patent's enforcement because Broadcom had a pending patent application that it knew might reasonably be necessary to practice the H.265 standard, it was obligated to disclose the application to the H.265 standards-setting body, and it did not.

C. Netflix will prevail on its counterclaim that Broadcom breached its RAND obligations with respect the '387, '663, and '283 patents.

The evidence will show that Broadcom breached its contracts with the standards-setting bodies for the H.264 and H.265 standards by failing to offer a license to the '387, '663, and '283 patents on reasonable and non-discriminatory ("RAND") terms to Netflix, a willing licensee and third-party beneficiary of these contracts, and that consequently, Netflix is owed compensatory or nominal damages. Numerous courts have recognized third-party breach of contract claims based on a patent owner's obligation to offer RAND licenses. *See, e.g., Realtek Semiconductor Corp. v. LSI Corp.*, 946 F. Supp. 2d 998, 1005 (N.D. Cal. 2013).

IV. CONCLUSION

The evidence at trial will show that judgment should be entered for Netflix on all of Plaintiffs' claims, as well as Netflix's RAND counterclaim.

	Case 3:20-cv-04677-JD	Document 625	Filed 12/22/23 Page 12 of 12
1	Dated: December 22, 2023		KEKER, VAN NEST & PETERS LLP
2			
3			By: /s/ Sharif E. Jacob ROBERT A. VAN NEST
4			SHARIF E. JACOB PAVEN MALHOTRA
5			MICHELLE YBARRA EDWARD A. BAYLEY
6			THOMAS E. GORMAN DAVID J. ROSEN
7			KATIE LYNN JOYCE
8			Attorneys for Defendant NETFLIX, INC.
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
		DEEEMD AND MODE	11
	DEFENDANT NETFLIX, INC.'S TRIAL BRIEF Case No. 3:20-cv-04677-JD		